

guest	SYSTEM MENU
-> 1) Plots	- Display Graphical Plots of Data
2) Dert	- Data Entry, Reduction, Transmittal
3) Reports	- Examine Instrumentation Data
4) Log	- Enter / Examine notes (Instrument diary)
5) Upload	- Upload an ascii file TO Denver
6) Download	- Download an ascii file FROM Denver
7) Mail	- Send a FILE to the Denver Office
8) EXIT	- Exit menu and return to command prompt

For Data Entry, Reduction, and Transmittal, Select DERT  
from the System Menu.

Press *down arrow* and press the Enter key -or-  
Press the digit 2.

After you enter the *three letter abbreviation* for the desired  
dam ( from the *Dam Selection Menu* ) you will get an *Instrument Menu*.  
( The following example is for Red Fleet ).

#### Red Fleet - Select Instrument

- 1) >cp< Closure Points
- 2) [cs] Concrete Structures
- 3) [dm] Reservoir/Tailwater/Precip
- 4) [dr] Drain Flows
- 5) [gp] Pneumatic Piezometers
- 6) [hd] Horizontal Drains
- 7) [in] Inclinometers
- 8) [mp] Measurement Points
- 9) [ow] Observation Wells
- 10) [pt] Porous-Tube Piezometers
- 11) [sm] Seepage Measurements
- 12) [sp] Slotted-Pipe Piezometers
- 13) [wa] Water Quality
- 14) [ x] Exit

The first instrument type will be highlighted. Select the desired instrument type by moving the arrow keys to highlight the instrument type, or enter the one or two digit number for the instrument, or press the letters of the instrument type. For example, to select Observation Wells, press the down arrow key to **9) [ow] Observation Wells** or press the digit 9 or press the letter o to highlight Observation Wells and press the Enter key.

NOTE: THE KEYPAD ENTER KEY WILL NOT WORK AS A CARRIAGE RETURN UNLESS YOU "PROGRAM" THE KEY TO BE A RETURN KEY. IF YOU DO NOT PROGRAM THE KEYPAD ENTER KEY TO BE A RETURN KEY, YOU WILL GET UNDESIRABLE RESULTS - LIKE INADVERTENTLY DELETING FILES. YOU CAN USE ARROW KEYS, TAB, SHIFT-TAB, PAGE-UP, PAGE-DOWN, HOME AND END KEYS FOR SCREEN MOVEMENTS.

IF YOU GET TO AN UNDESIRED SCREEN, OR FUNCTION, PRESS THE ESCAPE KEY.

The program will read the last 50 readings from the database for each instrument for the instrument type selected and then display the *Date Entry Screen* which is the left side of following example. The top right side of following examples are help screens.

[ref] Red Fleet [ow] Observation Wells Data Date : 1995/10/20;12 -----	Enter Date of readings ( yyyy/mm/dd;hh )  Use arrow keys, enter, tab, shift-tab to move around, down arrow, ESCAPE, or move to right from hour field to accept date -----
---	--

The current date and time will be displayed. As the right hand help screen shows, you can use the arrow and other keys to move the cursor. Modify the date to reflect the actual date of readings. You will then get a screen to enter any Reservoir/Tailwater/Precip/etc. readings. Following is an example screen.

[ref] Red Fleet [ow] Observation Wells Data Date : 1995/10/20;12 -----	Enter/Edit Reservoir/Tailwater/Precip values ( up arrow on first instrument to edit date )  Move off line ( up or down ) to reduce reading Press Escape for Observation Wells -----
---	--

Instrument	Input	Reduced	Previous	Previous	Change
Name	Reading	Reading	Date	Reduced	from Prv
Reservoir	Not Read	<Current Reading	95/09/12	5597.34	
Tailwater			95/09/12	5423.50	
Precip			95/04/26	1.34	

The Reservoir/Tailwater instruments will be displayed in the order read from the database. The input reading field is highlighted and the required type of input reading ( *Current Reading* ) is shown.

After entering the current reading ( and pressing the down arrow ), the screen will change as follows:

[ref] Red Fleet		Enter/Edit Reservoir/Tailwater/Precip values			
[ow] Observation Wells		( up arrow on first instrument to edit date )			
Data Date : 1995/10/20;12					
Reservoir Elev : 5600.10		Move off line ( up or down ) to reduce reading			
(Prev) 95/09/12 : 5597.34		Press Escape for Observation Wells			
-----		-----			
Instrument	Input	Reduced	Previous	Previous	Change
Name	Reading	Reading	Date	Reduced	from Prv
Reservoir	5600.1	5600.10	95/09/12	5597.34	2.76
Tailwater	Not Read	<Current Reading	95/09/12	5423.50	
Precip			95/04/26	1.34	

Notice that the input reading ( 5600.1 ) and the reduced reading ( 5600.10 ) are now displayed and the calculated Change from Previous ( 2.76 ) is also displayed. You can use the arrow keys to move up or down and change any values by using the left and right arrow keys, and/or insert and delete keys. By moving off a line ( up or down ), you have done the DATA ENTRY or DATA EDIT and DATA PROCESSING for an instrument on screen.

Note that you **do have to move off an instrument line** for the processing to take effect.

The top left hand screen is modified to display the reduced value for the reservoir elevation. If you need to change the **date of data**, you can return to the *Date Entry Screen* by pressing the up arrow.

To continue with the data entry for the instrument type, press the **Escape** key. The Escape key will always continue with the next screen/option, or will allow you to abort an option. For example, if you got into the option to delete a raw data file by accident, the **Escape** key will abort that option. Deleting raw data files and other options are explained later.

After pressing the Escape key, you will now be able to enter and process readings for the instrument type ( in this case Observation Wells ). An example *Data Entry Screen* follows:

```
[ref] Red Fleet          | Press Escape for options Menu
[ow] Observation Wells   | Move off line ( up or down ) to reduce reading
Data Date : 1995/10/20;12 | Press ^u ( control-u ) to clear field
Reservoir Elev  : 5600.10 | Press ^p ( control-p ) to toggle plot screen
(Prev) 95/09/12 : 5597.34 | Press c for instrument comments
-----|-----
Instrument   Input      Reference Reduced   Tip    Previous  Previous  Change
  Name      Reading      Elev    Reading    Elev    Date      Reduced  from Prv
OW-218      Not Read    <Top of Casing to Water  95/10/12  5474.20
OW-304                      5530.30      5448.60  95/02/27  5493.10
OW-306                      5505.80      5445.40  95/10/12  5475.60
OW-501                      5612.70      5535.20  95/10/12  5535.20
OW-502                      5611.40      5438.80  95/10/12  5530.50
OW-503                      5598.70      5470.70  95/10/12  5533.40
OW-504                      5512.70      5444.30  95/10/12  5468.20
OW-506                      5484.80      5433.20  95/10/12  5472.20
OW-507A                      5476.00      5413.40  95/10/12  5466.90
OW-507B                      5477.00      5449.10  95/10/12  5467.30
OW-508A                      5484.30      5404.60  95/10/12  5477.90
```

```
ow_water:  ow_top - rawl
           5494.80 - rawl
```

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The first screen of Observation Well instruments are displayed in the order read from the database. The input reading field is highlighted and the required type of input reading ( *Top of Casing to Water* ) is shown.

The Previous Date and the Reduced values for each instrument are displayed on screen. For Observation Well type instruments, the Reference Elevation ( top of casing ) and Tip Elevation are also displayed. If performance parameters are set up for the dam, the minimum and maximum expected values will display in place of the reference and tip elevations.

On the bottom left of the screen are two lines displaying the reduction equation that is used for the current instrument. The name of the reduced field is `ow_water`, and the reduction equation is `ow_top - rawl`. The second line is the reduction equation with all constant values displayed. In this case the top of casing ( `ow_top` ) for OW-218 is 5494.80.

The top right of the screen is a help screen. Pressing the letter `h` for help will toggle the help screen with a line plot displaying the reduced readings for the current instrument. You can also press `^p` ( press and hold the *control* key, press the letter `p` ) to toggle the help/plot screen.

Moving off a line ( up or down ) without entering any values will assume that the reading for the current instrument is **Not Read**. You can use the Insert and Delete keys to modify any input value. Letters available for input readings are `d` for **Dry**, `n` for **Not Read**, and `c` for **Comments**.

Pressing the *Escape* key will bring up the *Options Menu Screen*. Comments and other Options are explained later.

After entering the current reading ( and pressing the down arrow or Enter key ) the screen will change as follows:

```
[ref] Red Fleet          | Press Escape for options Menu
[ow] Observation Wells   | Move off line ( up or down ) to reduce reading
Data Date : 1995/10/20;12 | Press ^u ( control-u ) to clear field
Reservoir Elev : 5600.10 | Press ^p ( control-p ) to toggle plot screen
(Prev) 95/09/12 : 5597.34 | Press c for instrument comments
-----|-----
Instrument   Input      Reference Reduced   Tip    Previous  Previous  Change
  Name      Reading      Elev    Reading    Elev    Date      Reduced  from Prv
OW-218      13.7        5494.80  5481.10  5441.30  95/10/12  5474.20    6.90
OW-304      Not Read    <Top of Casing to Water  95/02/27  5493.10
OW-306                        5505.80          5445.40  95/10/12  5475.60
OW-501                        5612.70          5535.20  95/10/12  5535.20
OW-502                        5611.40          5438.80  95/10/12  5530.50
OW-503                        5598.70          5470.70  95/10/12  5533.40
OW-504                        5512.70          5444.30  95/10/12  5468.20
OW-506                        5484.80          5433.20  95/10/12  5472.20
OW-507A     5476.00          5413.40  95/10/12  5466.90
OW-507B     5477.00          5449.10  95/10/12  5467.30
OW-508A     5484.30          5404.60  95/10/12  5477.90
OW-508B     5484.00          5460.20  95/10/12  5475.50
```

```
ow_water:  ow_top - rawl
           5530.30 - rawl
```

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Values that have been changed are:

- The Input Reading for OW-218 ( 13.7 ) is displayed.
- The Reduced Reading for OW-218 ( 5481.10 ) is displayed.
- The Change From Previous for OW-218 ( 6.90 ) is displayed.
- The Prompt ( Top of Casing to Water ) for OW-304 is displayed.
- The Reduction Equation for OW-304 is displayed.
- The Top of Casing value ( ow\_top ) for OW-304 ( 5530.30 ) is displayed.

If you need to correct a reading, move back to the instrument line. You can use the left and right arrow keys, insert, delete, and backspace keys, and/or just type over previously entered digits.

For example, if the Input Reading for OW-218 should have been 14.7, move the cursor to the 3 in 13.7 and press the digit 4. After moving off the line, the values for OW-218 will change as follows:

```
Instrument   Input      Reference Reduced   Tip    Previous  Previous  Change
  Name      Reading      Elev    Reading    Elev    Date      Reduced  from Prv
OW-218      14.7        5494.80  5480.10  5441.30  95/10/12  5474.20    5.90
```

Comments for an instrument can be entered by pressing the letter *c*. A *Dry* reading can be entered by pressing the letter *d*. Sample Seepage Measurement and Observation Well *Instrument Comment Screens* follow.

```
[ref] Red Fleet          | Move arrow keys to highlight selected comment
[sm] Seepage Measurements | (highlight position 18 to enter your own comment)
Data Date : 1995/10/20;12 | Press return to select comment
Reservoir Elev : 5600.10  |
(Prev) 95/09/12 : 5597.34 | Press Escape to Abort
-----|-----
```

Comment	Reduced Value	Comment	Reduced Value
1) Broken	-----	10) No Flow	0.00
2) Damaged	-----	11) Not Read	-----
3) Damp	0.05	12) Seep	0.05
4) Destroyed	-----	13) Slow Drip	0.001
5) Drip	0.01	14) Trace	0.01
6) Dry	0.00	15) Trickle	0.01
7) Fast Drip	0.10	16) Weep	0.05
8) Frozen	-----	17) Wet	0.05
9) Muddied	0.05	18)	-----

```
[ref] Red Fleet          | Move arrow keys to highlight selected comment
[ow] Observation Wells    | (highlight position 9 to enter your own comment)
Data Date : 1995/10/20;12 | Press return to select comment
Reservoir Elev : 5600.10  |
(Prev) 95/09/12 : 5597.34 | Press Escape to Abort
-----|-----
```

Comment	Reduced Value	Comment	Reduced Value
1) Broken	-----	6) Frozen	-----
2) Damaged	-----	7) Not Read	-----
3) Destroyed	-----	8) Plugged	-----
4) Dry	tip elev	9)	-----
5) Flowing	top elev		

Move the arrow keys to highlight the selected comment and press the Enter key. The selected comment will be displayed in the Input Reading field, and the reduced value ( if any ) and change from previous will be displayed.

If you want to enter a comment that is not displayed, move the arrow keys to the last item, type in your own comment and press the Enter key.

To return to the *Data Entry Screen* without entering any comments, press the **Escape** key.

For example, if OW-218 was destroyed, move arrow keys to highlight OW-218, press *c* to display the *Instrument Comment Screen*, move the arrow keys to the third item **3) Destroyed**, and press the enter key.

The values for OW-218 will change as follows:

Instrument Name	Input Reading	Reference Elev	Reduced Reading	Tip Elev	Previous Date	Previous Reduced	Change from Prv
OW-218	Destroyed	5494.80		5441.30	95/10/12	5474.20	

Press the **Escape** key from the *Data Entry Screen* to display the *Options Menu Screen*. Following is a sample *Options Menu Screen*:

```
[ref] Red Fleet          | Select Option and Press Return -or-
[ow] Observation Wells   | Press first letter of Option
Data Date : 1995/10/20;12 | Press v to View saved raw data file
Reservoir Elev  : 5600.10 | Press e or o to Enter general cOmments
(Prev) 95/09/12 : 5597.34 | Press h or ? for help
-----|-----
```

Instrument	Input	Reference	Reduced	Tip	:	
Name	Reading	Elev	Reading	Elev	:	
OW-218	14.7	5494.80	5480.10	5441.30	:	Continue entering
OW-304	10.2	5530.30	5520.10	5448.60	:	Load readings to database
OW-306	9.5	5505.80	5496.30	5445.40	:	Print report w/o loading
OW-501		5612.70		5535.20	:	Save current raw data file
OW-502		5611.40		5438.80	:	Read saved data file
OW-503		5598.70		5470.70	:	Delete saved data file
OW-504		5512.70		5444.30	:	eXit to instrument Menu
OW-506		5484.80		5433.20	:	----- Saved Files -----
OW-507A		5476.00		5413.40	:	guest1.ow 1995/09/30;08
OW-507B		5477.00		5449.10	:	guest2.ow 1995/10/13;12
OW-508A		5484.30		5404.60	:	
OW-508B		5484.00		5460.20	:	
					:	
					:	Press h or ? for Help

From the *Options Menu*:

**For Help:**

Press the letter *h* or the *?* key, or if you do not have any saved raw data files, you can move the arrow keys to highlight **Help** and press the Enter key. Help topics available are shown in the following example. Move the arrow keys to select the desired Help topic and press the Enter key.

Note: Pressing *h*, *?*, or *control-p* from the *Data Entry Screen* will toggle help messages in the top right hand of the screen with a line plot of the current instrument.

[ref] Red Fleet					
[ow] Observation Wells				Select Help Topic and Press Return	
Data Date : 1995/10/20;12				Press Escape to Abort	
Reservoir Elev : 5600.10					
(Prev) 95/09/12 : 5597.34					
-----					
Instrument	Input	Reference	Reduced	Tip	Help
Name	Reading	Elev	Reading	Elev	:
OW-218	14.7	5494.80	5480.10	5441.30	: Use arrow keys or tab to
OW-304	10.2	5530.30	5520.10	5448.60	: move highlighted bar.
OW-306	9.5	5505.80	5496.30	5445.40	:
OW-501		5612.70		5535.20	: Press Return for the
OW-502		5611.40		5438.80	: desired selection.
OW-503		5598.70		5470.70	:
OW-504		5512.70		5444.30	: Moving around
OW-506		5484.80		5433.20	: Entering Date
OW-507A		5476.00		5413.40	: Entering Data
OW-507B		5477.00		5449.10	: Enter Comments
OW-508A		5484.30		5404.60	: Saving Files
OW-508B		5484.00		5460.20	: Reading Files
					: Deleting Files
					:
					: Press Escape to Abort



From the *Options Menu* ( continued ):

**To Enter General Comments:**

Press the letter `e` or the letter `o`, or if you do not have any saved raw data files, you can move the arrow keys to highlight **Enter cOmments** and press the Enter key.

Insert, Delete, and Backspace keys can be used to edit comments.

**Note:** To retain a comment, you have to move off the comment line. Even if you only have one comment line, you have to press the up or down arrow, or the Enter key.

You have 50 lines of 80 columns for general comments. The current line will be highlighted.

Press the Escape key when finished entering comments to return to the Options menu.

**To Continue Entering Data:**

Press the letter `c`, or move arrow keys to highlight **Continue entering** and press the Enter key.

**To Load Readings to Database:**

Press the letter `l` or move arrow keys to highlight **Load readings to database** and press the Enter key.

Move arrow keys to highlight a Report Listing option from **To Screen - DOES NOT LOAD**, or **LOAD to DENVER**. To store readings to Denver database, you must select **LOAD to DENVER**. The option to print to Screen allows you to view the report listing. If **To Screen** is selected, press the Enter key to advance one line, press the space bar to advance one page, or press the letter `q` for quit.

When readings are loaded to the database, the report listing for the instrument type will be appended to a file. The file name will be based on the dam abbreviation and the current date. For example, if Observation Well readings for Red Fleet were loaded on October 20, 1995, the report listing would be appended to the file `refoct20.fri`. ( Red Fleet - Oct 20 . Friday ). This file would remain on our system for a week.

Press the **Escape** key to ABORT loading readings to the database.

**To Print a report Without Loading to the Database:**

Press the letter `p` or move arrow keys to highlight **Print report w/o Loading** and press the Enter key.

Move arrow keys to highlight a Report Listing option from **To File**, **To Screen**, or **None**. The file name will be based on the dam abbreviation. For example, if a Red Fleet Observation Well report file was saved to a file, the file name would be `ref-ow.rpt`. This file would remain on our system until midnight of the current day.

Press the **Escape** key to ABORT printing a report file.

From the *Options Menu* ( continued ):

**To Save Raw Data to a File:**

Press the letter *s* or move the arrow keys to highlight **Save current raw data file** and press the Enter key.

The raw data file name will be **guest1.xx** through **guest9.xx** where *xx* is the instrument type.

**Note:** Saved data files are NOT LOADED to the DATABASE unless you select the option to Load readings to database.

**To Read a Saved Data File:**

Press then letter *r* or move the arrow keys to highlight **Read saved data file** and press the Enter key. Move the arrow keys to highlight the file to read and press the Enter key.

Reading a saved data file will return to the *Date Entry Screen* to allow you to modify the Date of Data.

**Note:** Reading a saved data file will replace any data entered during the current session.

Press the **Escape** key to ABORT reading a data file.

**To View a Saved Data File:**

Press the letter *v* and move the arrow keys to highlight the data file to view. While viewing the file selected, press the Enter key to advance one line, press the space bar to advance one screen, or press the letter *q* for Quit.

**To Delete a Saved Data file:**

Press the letter *d* or move the arrow keys to highlight **Delete saved data file** and press the Enter key. Move the arrow keys to highlight the file to delete and press the Enter key.

You are limited to 9 saved files per instrument type so you will need to Delete saved raw data files periodically. Care should be taken to only delete saved raw data files that will no longer be used.

**To Exit:**

Press the letter *x* or the letter *m* or move the arrow keys to highlight **eXit to instrument Menu** and press the Enter key.

If you have entered any data, a raw data file will automatically be saved when you eXit to the instrument Menu.

From the *Instrument Menu*, you can select another instrument, or press the letter *x* or move the arrow keys to **[ x] Exit** to return to the *System Menu*.

### **General Screen movement keys:**

Enter:            Move down to next line   ( **Do NOT use the keypad Enter key unless it is programmed to be a Return key** )

Down arrow:    Move down to next line  
                  ( from last instrument will move to first instrument )

Up arrow:        Move up to previous line  
                  ( from first instrument will move to last instrument )

Page Up:         Move up to previous screen

Page Down:      Move down to next screen

Home:            Move to first instrument

End:             Move to last instrument